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Foreign Reference

____ M903 ___

DO/EO Acceptance

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DO/EO Missing Requirement

OUTGOING

	NFDR	
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Notice of Allowance

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Non-Patent Literature

PEFN_

Pre-Exam Formalities Notice

PETDEC

Petition Decision

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After Final or 312 Amendment

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Petition Decision Express ABN

XRUSH

TC Resp. to Printer Query

PTO INTERNAL

CLMPTO _

PTO Prepared Complete Claim Set

IIFW

File Wrapper Issue Information

SRNT

Examiner Search Notes

SRFW

File Wrapper Search Info

SEQREQ

Sequence Problem Att. from Examiner

CDCHECK

Compact Disk Review Checklist

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DUPLICATE 8
LŽ
     ANSWER 17 OF 21 AGRICOLA
     Homology between the Hrpo protein of Pseudomonas solanacearum and
TI
     bacterial proteins implicated in a signal peptide-independent secretion
     mechanism.
     ANSWER 18 OF 21 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
L2
     The VirD2 protein of Agrobacterium tumefaciens carries nuclear
TI
     localization signals important for transfer of T-DNA to plants.
                                                                DUPLICATE 9
     ANSWER 19 OF 21 AGRICOLA
12
     Are harpins universal elicitors of the hypersensitive response of
TI
     phytopathogenic bacteria?
     ANSWER 20 OF 21 CABA COPYRIGHT 2003 CABI
L2
     Harpin, from Erwinia amylovora, elicits the hypersensitive response and is
TI
     a determinant of pathogenicity.
                                                                DUPLICATE 10
     ANSWER 21 OF 21 AGRICOLA
L2
     Harpin, elicitor of the hypersensitive response produced by the plant
TI
     pathogen Erwinia amylovora.
=> d bib abs 13 2
     ANSWER 13 OF 21 CAPLUS COPYRIGHT 2003 ACS
L2
      1994:265707 CAPLUS
ΑN
      120:265707
DN
     Cloning of microbial gene for elicitor of the hypersensitive response in
TI
      Beer, Steven V.; Wei, Zhong Min; Bauer, David W.; Collmer, Alan; He, Sheng
IN
     Yang; Laby, Ron
     Cornell Research Foundation, Inc., USA
PΑ
      PCT Int. Appl., 51 pp.
S<sub>0</sub>
      CODEN: PIXXD2
DT
      Patent
     English
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          RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
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      EP 648266
                  BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
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      US 6174717
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                                                 us 1997-851376
PRAI US 1992-907935
                                19920701
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      wo 1993-us6243
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     US 1994-200724 A3 19940223
The gene ( ***hrpN*** ) for the hypersensitive response elicitor protein, harpin, is cloned from Erwinia amylovora cosmid pCPP430 and its amino acids deduced. The elicitor protein is a 44-kDa protein with a pI
AB
      of 4.3 and is heat-resistant at 100 degree. for >1 min. The
      genes of Erwinia, Pseudomonas, and Xanthomonas are highly similar. Method to alter the disease or hypersensitive response in a plant by
      providing an inhibitor of the harpin elicitor is also described.
      ANSWER 2 OF 21 CAPLUS COPYRIGHT 2003 ACS 1997:151517 CAPLUS
L2
AN
DN
      126:155234
      Hypersensitive response induced resistance in plants
ΤI
      Wei, Zhong-Min; Beer, Steven V.
IN
      Cornell Research Foundation, Inc., USA
PA
SO
      PCT Int. Appl., 68 pp.
      CODEN: PIXXD2
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      Patent
      English
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               LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
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              IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML
887 A 19970722 US 1995-475775 19950607
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                                                BR 1996-9073
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US 1997-891254
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PRAI US 1995-475775
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A method of imparting pathogen resistance to plants is decribed. AB involves applying a hypersensitive response elicitor polypeptide or protein in a non-infectious form to a plant under conditions where the polypeptide or protein contacts cells of the plant. The invention is also directed to a pathogen resistant plant and a compn. for imparting pathogen resistance to plants. Thus, treatment of tomato plants with harpin or Escherichia coli DH5 (pCPP430), which produces harpin, results in induced resistance in the plants to southern bacterial wilt caused by Pseudomonas solanacearum K60.

=> d bib abs 4

ANSWER 4 OF 21 CABA COPYRIGHT 2003 CABI L2

97:74736 CABA ΔN

DN 971003528

Harpin from Erwinia amylovora induces plant resistance ΤI

ΑU

CS

SO

Wei, Z. M.; Beer, S. V.; Bonn, W. G. [EDITOR]
Department of Plant Pathology, Cornell University, Ithaca, NY 14853, USA.
Acta Horticulturae, (***1996***) No. 411, pp. 223-225. 7 ref.
Meeting Info.: VII International workshop on fire blight, St. Catherines,

Ontario, Canada, 7-10 August 1995. ISSN: 0567-7572; ISBN: 90-6605-897-8

DT Conference Article; Journal

LA English

hrp genes are essential for E. amylovora to cause disease in host plants and the hypersensitive response (HR) in non-host plants. Harpin is a heat stable, glycine rich protein encoded by ***hrpN*** of E. amylovora AB which elicits HR in many plants. Harpin-induced HR may, therefore, induce plant resistance. Harpin induced resistance in >7 different plants against 8 diseases caused by fungi, viruses and bacteria was studied. All tested plants showed some resistance. Evidence of harpin-induced resistance to southern bacterial wilt of tomato [Ralstonia solanacearum] and tobacco mosaic tobamovirus and Gliocladium leaf spot of cucumbers is reported.

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SESSION WILL BE HELD FOR 60 MINUTES STN INTERNATIONAL SESSION SUSPENDED AT 14:31:35 ON 23 APR 2003

	τ	1	Document ID	Issue Date	Title	Inventor	s	C
1	×		US 5849868 A	20031029	Hypersensitive response elicitor protein derived from erwinia amylovora - and DNA encoding it, useful for developing harpin inhibitors to prevent e.g. fire blight of fruit	BAUER, D W et al.		
2	×		US 20020066122 A	20031007	Novel hypersensitive response elicitor polynucleotides and polypeptides used to improve disease resistance, insect resistance, and growth of plants	FAN, H et al.		
3	×		US 20030182683 A1	20030925	Hypersensitive response elicitor fragments eliciting a hypersensitive response and uses thereof	Laby, Ron J. et al.		
4	×		US 20010011380 A	20030925	New fragments of an Erwinia hypersensitive response elicitor protein and related DNA - used to impart disease resistance to plants, to increase their growth and to control insects	BEER, SV et al.		
5	×		US 6624139 B1	20030923	Hypersensitive response elicitor-induced stress resistance	Wei, Zhong-Min et al.		
6	×		US 20030177526 A1	20030918	Receptors for hypersensitive response elicitors and uses thereof	Song, Xiaoling et al.		
7	×		WO 2003054211 A	20030918	New isolated protein as a receptor in plants for plant pathogen hypersensitive response elicitors, useful for identifying agents that impart disease resistance, enhance plant growth, control insects and/or impart stress tolerance	BARIOLA, P A et al.		
8	×		US 20030166533 A1	20030904	Genes for male accessory gland proteins in Drosophila melanogaster	Wolfner, Mariana F. et al.		
9	×		US 6613960 B1	20030902	Phloem-loading-specific promoter	Turgeon, E. Robert		
10	×		US 20030163837 A1	20030828	Constitutive and inducible promoters from coffee plants	Aldwinckle, Herbert S. et al.		
11	×		US 20020019337 A	20030820	Inhibiting post harvest disease (caused by Penicillium, Botrytis, Phytophthora, or Erwinia) or desiccation and enhancing the longevity in a fruits or vegetables, using hypersensitive response elicitor proteins or nucleic acids	QIU, D et al.		
12	×		US 20020007501 A	20030709	New plant pathogen hypersensitive response elicitor-receptor protein isolated from plants, which upon silencing is used to study plant signal transduction pathways leading to disease resistance and growth enhancement	FAN, H et al.		
13	×		WO 3054211 A2	20030703	RECEPTORS FOR HYPERSENSITIVE RESPONSE ELICITORS AND USES THEREOF	SONG, XIAOLING et al.		
14	×		US 6583107 B2	20030624	Hypersensitive response elicitor fragments eliciting a hypersensitive response and uses thereof	Laby, Ron J. et al.		
15	×		US 20030104979 A1	20030605	Methods of inhibiting desiccation of cuttings removed from ornamental plants	Wei, Zhong-Min et al.		
16	×		WO 200237960 A	20030605	Inhibiting desiccation of cuttings from ornamental plants, by treating ornamental plants with hypersensitive response elicitor protein, or expressing heterologous hypersensitive response elicitor protein in plants	LEON, E et al.		
17	×		US 20020062500 A	20030409	New hypersensitive response elicitor proteins comprising spaced apart domains having an acidic portion linked to an alpha-helix, useful for imparting disease or stress resistance, controlling insects or enhancing plant growth	FAN, H et al.		

	τ	1	Document ID	Issue Date	Title	Inventor	s	c
18	×		US 20030028918 A1	20030206	Method of imparting drought resistance to plants	Wei, Zhong-Min		
19	×		US 6277814 B	20030206	method for enhancing plant growth - comprises use of hypersensitive response elicitor polypeptide or protein which may also effect, e.g. increase in plant height or earlier germination seed	BEER, S V et al.		
20	×		US 6485977 B1	20021126	Recombinant constructs and techniques for delivering to eucaryotic cells bacterial proteins that are secreted via type III secretion systems	Collmer, Alan et al.		
21	×		WO 200119393 A	20021126	Delivering effector proteins into target cell for use in protein therapy, involves introducing effector protein fused to protein transduction domain of human immunodeficiency virus TAT protein, into target cells	BEER, S V et al.		
22	×		US 6441273 B1	20020827	Constitutive and inducible promoters from coffee plants	Aldwinckle, Herbert S. et al.		
23	X		US 20020116733 A1	20020822	Hypersensitive response induced resistance in plants by seed treatment	Qiu, Dewen et al.		
24	×		US 6235974 B	20020822	Imparting pathogen resistance to plants - by applying a hypersensitive response elicitor polypeptide to seeds	BEER, S V et al.		
25	×		US 20020069434 A1	20020606	Oomycete-resistant transgenic plants by virtue of pathogen-induced expression of a heterologous hypersensitive response elicitor	Beer, Steven V. et al.		
26	×		WO 200028055 A	20020601	Application of a hypersensitive response elicitor protein to plants to impart stress resistance	SCHADING, R L et al.		
27	×		WO 200020452 A	20020601	Hypersensitive response elicitor polypeptides useful for imparting enhanced growth, disease resistance and insect resistance to plants, especially vegetables and ornamental flowers	FAN, H et al.		
28	×		US 20020066122 A1	20020530	Hypersensitive response elicitor from Xanthomonas campestris	Wei, Zhong-Min et al.		
29	×		US 20020062500 A1	20020523	Hypersensitive response eliciting domains and use thereof	Fan, Hao et al.		
30	×		US 20020059658 A1	20020516	Methods of improving the effectiveness of transgenic plants	Wei, Zhong-Min et al.		
31	×		US 6333302 B	20020501	Imparting disease resistance to plants	BEER, S V et al.		
32	×		US 6380159 B1	20020430	Genes for male accessory gland proteins in drosophila melanogaster	Wolfner, Mariana F. et al.		
33			US 20020019337 A1	20020214	Treatment of fruits or vegetables with hypersensitive response elicitor to inhibit postharvest disease or desiccation	Wei, Zhong-Min et al.		
34	×		US 20020066122 A	20020214	New Xanthomonas hypersensitive response elicitor protein, useful for imparting disease resistance to plants, enhancing plant growth and controlling insects in plants	SWANSON, S S et al.		
35	×		US 20020007501 A1	20020117	Receptors for hypersensitive response elicitors and uses thereof	Song, Xiaoling et al.		
36	×		US 6333302 B1	20011225	Use of hypersensitive response elicitor protein or polypeptide from Clavibacter michiganensis for disease resistance, growth enhancement and insect control	Beer, Steven V. et al.		

	U	1	Document ID	Issue Date	Title	Inventor	s	C
37	Ø		US 20020059658 A	20011220	Improving effectiveness of transgenic plants by topical application of a hypersensitive response elicitor protein to the transgenic plant or by incorporating into the plant a transgene encoding the protein	DEROCHER, J E et al.		
38	Ø		US 6277814 B1	20010821	Enhancement of growth in plants	Qiu, Dewen et al.		
39	Ø		US 20010011380 A1	20010802	HYPERSENSITIVE RESPONSE ELICITOR FRAGMENTS ELICITING A HYPERSENSITIVE RESPONSE AND USES THEREOF	LABY, RON J. et al.		
40	Ø		US 20020069434 A	20010802	New chimeric gene, useful for controlling plant-pathogenic fungi and producing oomycete-resistant transgenic plants, comprises first DNA encoding hypersensitive response elicitor, promoter and regulatory region	BAUER, D W et al.		
41	Ø		US 6262018 B1	20010717	Hypersensitive response elicitor from Erwinia amylovora and its use	Kim, Jihyun Francis et al.		
42	Ø		US 6235974 B1	20010522	Hypersensitive response induced resistance in plants by seed treatment with a hypersensitive response elicitor	Qiu, Dewen et al.		
43	Ø		US 6228644 B1	20010508	Hypersensitive response elicitor from Erwinia amylovora, its use, and encoding gene	Bogdanove, Adam J. et al.		
44	Ø		US 6174717 B1	20010116	Elicitor of the hypersensitive response in plants	Beer, Steven V. et al.		
45	Ø		US 6172184 B1	20010109	Hypersensitive response elicitor from Pseudomonas syringae and its use	Collmer, Alan et al.		
46	Ø		US 6001959 A	19991214	Hypersensitive response elicitor from Erwinia chrysanthemi	Bauer, David et al.		
47	Ø		US 5977060 A	19991102	Insect control with a hypersensitive response elicitor	Zitter, Thomas A. et al.		
48	Ø		WO 9911133 A1	19990311	USE OF HYPERSENSITIVE RESPONSE ELICITOR FROM GRAM POSITIVE BACTERIA	BEER, STEVEN V et al.		
49	Ø	1 1 3	WO 9907208 A1	19990218	HYPERSENSITIVE RESPONSE ELICITOR FROM ERWINIA AMYLOVORA AND ITS USE	KIM, JIHYUN FRANCIS et		
50	Ø		WO 9907207 A1	19990218	HYPERSENSITIVE RESPONSE ELICITOR FROM PSEUDOMONAS SYRINGAE AND ITS USE	COLLMER, ALAN et al.		
51	Ø		WO 9907206 A1	19990218	HYPERSENSITIVE RESPONSE ELICITOR FROM ERWINIA AMYLOVORA, ITS USE, AND ENCODING GENE	BOGDANOV E, ADAM J et al.		
52	Ø		US 5859324 A	19990112	Hypersensitive response induced resistance in plants	Wei, Zhong-Min et al.		
53	Ø		US 5850015 A	19981215	Hypersensitive response elicitor from Erwinia chrysanthemi	Bauer, David et al.		
54	Ø		US 5849868 A	19981215	Elicitor of the hypersensitive response in plants	Beer, Steven V. et al.		
55	Ø		WO 9854214 A2	19981203	HYPERSENSITIVE RESPONSE ELICITOR FRAGMENTS ELICITING A HYPERSENSITIVE RESPONSE AND USES THEREOF	LABY, RONALD J et al.		
56	Ø		WO 9837752 A1	19980903	INSECT CONTROL WITH A HYPERSENSITIVE RESPONSE ELICITOR	ZITTER, THOMAS A et al.		
57	Ø		US 5977060 A	19980903	Use of hypersensitive response elicitor polypeptide - for application to plants or seeds or transgenic plants or seeds for the control of insects.	WEI, Z et al.		
58	×		WO 9832844 A1	19980730	ENHANCEMENT OF GROWTH IN PLANTS	QIU, DEWEN et al.		

	τ	1	Document ID	Issue Date	Title	Inventor	s	C
59	×		US 5776889 A	19980707	Hypersensitive response induced resistance in plants	Wei, Zhong-Min et al.		
60	×		WO 9824297 A1	110020611	HYPERSENSITIVE RESPONSE INDUCED RESISTANCE IN PLANTS BY SEED TREATMENT	QIU, DEWEN et al.		
61	×		WO 9639802 A1	110061210	HYPERSENSITIVE RESPONSE INDUCED RESISTANCE IN PLANTS	WEI, ZHONG-MIN et al.		
62	×		US 5650387 A		Imparting pathogen resistance to plants - with hypersensitive response elicitor polypeptide or protein	BEER, S V et al.		